

**Work Order ID 63374**

Thursday, October 28, 2010 10:19:40 AM



Page 1

Item ID: D206-642-541

Accept



Setup Start



Revision ID:

Item Name: Replacement Skidtube

Stop



Start Date: 10/28/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 11/4/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan:



Date: 10-10-28 Tooling:

Date:

Run Start



QC:

Date: SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

Draw Nbr	Revision Nbr
D3274	D
IIN-D206-642	Rev M

100

0.00



DOCUMENT CONTROL

DC

Document Control

Memo

0.00

Photocopy bluefile &amp; type labels per PPP D206-642-541

CHG003

N/A C4 10/12/13

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center ID

110



Skidtubes

Skidtubes

Operation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan

Accept

Reject

Reject

Number

Insp.  
Stamp

0.00

0.00

\*\*\*\*VERIFY AND INSPECT THE MATERIAL PRIOR TO USE\*\*\*\*

1- Bend FWD end of tube using bend prog D3274 FWD and foilo 10 as per dwg D3274, cut fwd end of tube with saw table setup D3274.

2- remove fwd indexing ridge as per dwg D3274. Prepare for welding

3- weld fwd cap as per dwg D3274 and QSI004

AR Aluminum Rod Batch: M115778/M111385

4- grind fwd cap weld on top surface only

5- Cut AFT end of tube at 170.9" as per dwg D3274 and deburr end.

6- Drill Aft cap pilot hole using DT8025

7 -Cleco DT8025 in position and install pilot hole drill Jig DT8742A,B,C,D.  
Drill 3/16" pilot holes as per Dwg D3274

8 -Remove inner indexing ridge on aft end of skidtube as per Dwg D3274 scribe batch #

9 -Open aft end cap holes to Ø0.208" as per Dwg D3274. Deburr aft end.

DP

10-11-3

BE 10/11/03

BE 10/11/04

BE 10/11/04

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Date:

SPC (Y/N):

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Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

120



Chemical Conversion Coat per QSI005 4.1

0.00

HandFinish

Hand Finishing

Memo

0.00

+ 3B  
(11/09)

130



QC3- Inspect Part Finish

0.00

Solutions

QC

Quality Control

Memo

0.00

140



QC5- Inspect part completeness to step on W/O

0.00

Solutions

QC

Quality Control

Memo

0.00

(4) \_\_\_\_\_

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Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

150



Skidtubes

Skidtubes

Memo

0.00

1-Open Ø0.313" and 0.375" crossbolt spacer holes as per Dwg D3274

2-Deburr crossbolt spacer holes as per Dwg D3274 and blow out chips from  
inside the tube

3-Bond web in place as per Dwg D3274 &amp; QSI 015.

A/R  Sikaflex-291  M116040 Sikaflex expire date: 11-9-30Start: 10-11-15 Time: 2pmFinish: 10/11/16 Time: 7:55am

(Adhere for 12 hours)

160



QC

Quality Control

act

QCR Inspect part completeness to step on W/O

0.00

acto

Memo

0.00

S101116

(70)

10-11-15

BB 10/11/10

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Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

170



Skidtubes

0.00

Skidtubes

Memo

0.00

1-Bend AFT end of tube using bend prog. D3274 AFT as per dwg D3274. Install drop pins in crossbolt spacer holes to maintain web position.

2- DRILL PILOT HOLES FOR WEARPLATES USING D3274-1T2  
OPEN HOLES TO .297". Deburr3-DRILL TOE PIN HOLE .640" DIA AS PER DWG USING DT8935 FWD  
END OF TUBE  
DEBURR INSIDE OF HOLE AS NECESSARY (DO NOT ENLARGE HOLES)  
REMOVE ANY FOREIGN OBJECTS INSIDE OF TUBES

4- Countersink crossbolt spacer holes as per Dwg D3274

5- prepare for welding

BE 10/11/16

BB

10/11/16

180



QC

Quality Control

QC Inspect part completeness to step on W/O

QC

0.00

L = 4.6"

0.00

h = 2.912"

S101W16

W

W/O:		WORK ORDER CHANGES					
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Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

190



Skidtubes

Skidtubes

0.00

Skidtubes

Memo  
 1-Insert D2649 & D3275-1 crossbolt spacers. Weld as per QSI 004 and Dwg D3274. Remember to back drill each hole before welding the other side. Use aluminum rod  
 A/R  Aluminum Rod *Milk 985* *BE 10/11/16*

3-Grind cross bolt welds flush as per Dwg D3274.

4-Counterbore 5/16" x 0.750" deep as per Dwg D3274 and deburr.

*ZB 10/11/17*

200



QC

Quality Control

905- Inspect part completeness to step on W/O

0.00

QCL6

Memo

0.00

*Sioluh7*
*(H)*

u.k.g

W/O:		WORK ORDER CHANGES							
DATE	STEP	PROCEDURE CHANGE			By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center ID

210



QC

Quality Control

Operation  
Description

QC10- Inspect visual per QSI004- ground welds

Set Up/  
Run Hours

0.00

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

S 10/11/17

TO

220



HandFinish

Hand Finishing

Pressure Wash per QSI005 4.3

0.00

=) M 10/11/17

L P

Memo

0.00

✓ Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch

230



Powdercoat

Powder Coating

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

M 10/11/17

0.00

Memo

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

8:00 325°  
8:30

L Bl 10-11-18.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Customer:

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Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center ID

240



QC

Quality Control

Operation  
Description

QC3- Inspect Part Finish

Set Up/  
Run Hours

0.00

→ HL

Tool ID

1011118

Tool #

Plan  
CodeAccept  
Qty

1

Reject  
Qty

0

Reject  
NumberInsp.  
Stamp

250



HandFinish

Hand Finishing

HandFinishing

0.00

→ HL

1011118

Memo

0.00

1-Install Nut Plate as per Dwg D3274. Apply LPS-3 to Nut Plate and rivets.  
A/R□N/A□LPS-3□ M109956

Memo

2-Install inserts as per Dwg D3274. Use a drop of Sikaflex inside insert holes a  
A/R□□Sikaflex-291 □ 111514  
Sikaflex expire date: □ 11101

260



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

Inspect Nut Plate &amp; Inserts

ML 10 11 18 (1)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center ID

270



HandFinish

Hand Finishing

Operation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

0.00

=&gt; 9U

10/11/10

1 - 6

HAND FINISHING RESOURCE #1

0.00

Memo

1-Install wearpads &amp; gaskets as per Dwg D3274.

2-Install ring as per Dwg D3274

A/R  Sikaflex-291  11/15/14   
Sikaflex expire date:  11/01

3-Inspect for foreign objects as per QSI 024

4-Spray inside of tube on both sides of web with LPS-3

A/R LPS-3 Batch: 10/14

5-Install Aft Cap and seal with Sikaflex. Clean excess adhesive.

A/R  Sikaflex-291  11/15/14   
Sikaflex expire date:  11/01

280



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

8 colwks

0.00

(40)

W/O:		WORK ORDER CHANGES					
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Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

**Sequence ID/  
Work Center ID****Operation  
Description****Set Up/  
Run Hours****Tool ID****Tool #****Plan  
Code****Accept  
Qty****Reject  
Qty****Reject  
Number****Insp.  
Stamp**

290

Identify as per dwg &amp; Stock Location:

0.00



Packaging

Packaging

Memo *PPP 62709*

300

QC21- Final Inspection - Work Order Release

0.00



QC

Quality Control

Memo

*Cory 10/12/10*
*CK 10/12/13*
*MF*
*10-12-10*

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# Picklist Print

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Page 1

Work Order ID: 63374



G

Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 10/28/2010

Required Date: 11/4/2010

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP Rev:B 05.09.23 Revised per D206-642 Rev. J KJ/JLM  
IPP Rev:C 07-02-23 Added SS Wearplates & Gaskets JLM  
IPP Rev:D 07-12-06 replace NAS1515H3L to D3672-1 DD  
IPP Rev:E 08-04-17 as per PAR 08-015 DD verified by:EC  
IPP Rev:F 08-06-02 add comment DD verified by:EC  
IPP Rev:G 08-10-09 revise details DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2600-1-190 		Manufactured	No			110	Each	63.0000	1	1			

Extrusion Round 3" 206

Location	Loc Qty	Loc Code
LG	63	
47575	15	
59874	48	

O PP 10-11-3

D3285-1



Manufactured

No

110

Each

141.0000

1

1

Cap

Location	Loc Qty	Loc Code
LG	141	
52511	74	
52647	67	

1 BE 10-11-04

D3282-041



Manufactured

No

150

Each

0.0000

1

1

Float Web (206L/407)

B 63390

① DP 10-11-15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 10/28/2010

Required Date: 11/4/2010

Start Qty: 1.00

Required Qty: 1.00

D2649



Manufactured No

190

Each

107.0000

12

12



Cross Bolt Spacer

Location

Loc Qty

Loc Code

LG

107

B 63359

12 BE 10/11/16

58545

2

60652

4

61496

13

62889

88

D3275-1



Manufactured No

190

Each

216.0000

12

12



Crossbolt Spacer

Location

Loc Qty

Loc Code

LG

216

/

53453

8

61646

102

62399

106

CR3212-4-03



Purchased No

250

Each

1,874.000

2

2



Cherry Rivet

Location

Loc Qty

Loc Code

ST311

1874

/

111359

5

112314

2

114436

448

114450

71

114859

1348

X2

W/O:		WORK ORDER CHANGES					
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Parent Item Name: Replacement Skidtube

Start Date: 10/28/2010

Required Date: 11/4/2010

Start Qty: 1.00

Required Qty: 1.00

D3415-041



Manufactured

No

250

Each

52.0000

1

1

Nut Plate

SL 10/11/18

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

ST056

52

33842

52

X1

CCR264SS3-3



Purchased

No

250

Each

416.0000

2

2

Cherry Rivet

SL 10/11/18

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

ST311

416

112314

4

113539

44

113973

368

X2

ALS4-1032-130



Purchased

No

250

Each

2,653.000

78

78

Insert

SL 10/11/18

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

PKG11

886

114723

886

ST282

1728

110511

10

115911

1718

ST381

39

114654

39

V78

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

Thursday, October 28, 2010 10:19:45 AM

Page 4

Work Order ID: 63374



9

Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 10/28/2010

Required Date: 11/4/2010

Start Qty: 1.00

Required Qty: 1.00

D3536-15



Manufactured No

270

Each

18.0000

1



SL 10/11/18

Gasket

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP	6	B63568

56055

1

60875

5

FP11

12

59238

1

62459

11

D3536-23



Manufactured No

270

Each

3.0000

1



SL 10/11/18

Gasket

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP011	3	B63238

61237

3

D3536-35



Manufactured No

270

Each

16.0000

1



SL 10/11/18

Gasket

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP012	16	1363579

58683

1

61692

3

62462

12

D3536-39



Manufactured No

270

Each

12.0000

1



SL 10/11/18

Gasket

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP12	12	B63578

58215

1

58571

11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

Thursday, October 28, 2010 10:19:45 AM

Page 5

Work Order ID: 63374



Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 10/28/2010

Required Date: 11/4/2010

Start Qty: 1.00

Required Qty: 1.00

D3535-15



Manufactured No

270

Each

22.0000

1

1

Wearshoe

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP18	22	
61241	6	
62241	3	
<u>62707</u>	13	<u>X1</u>

D3535-35



Manufactured No

270

Each

26.0000

1

1

Wearshoe

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP018	26	
60865	6	
<u>62461</u>	12	<u>X1</u>
<u>62969</u>	8	

D3535-39



Manufactured No

270

Each

27.0000

1

1

Wearshoe

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP18	27	
<u>60233</u>	16	
62945	11	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

Thursday, October 28, 2010 10:19:45 AM

Page 6

Work Order ID: 63374



9

Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 10/28/2010

Required Date: 11/4/2010

Start Qty: 1.00

Required Qty: 1.00

D3535-23



Manufactured No

270

Each

28.0000

1

1



HL 10/11/18

Wearshoe

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP	7	
61830	6	
FP021	21	
60231	8	
<u>62706</u>	13	

D3537-3



Manufactured No

270

Each

40.0000

1

1



HL 10/11/18

Wearpad

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP17	40	
60866	3	
61674	17	
<u>62705</u>	20	

D3537-1



Manufactured No

270

Each

66.0000

9

9



HL 10/11/18

Wearpad

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>	
FP	1	BC62928	X9
55465	1		
FP017	59		
61986	15		
62209	44		
FP17	6		
57713	3		
60491	3		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

Thursday, October 28, 2010 10:19:45 AM

Page 7

Work Order ID: 63374



9

Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 10/28/2010

Required Date: 11/4/2010

Start Qty: 1.00

Required Qty: 1.00

AN960C10L

NAS1149C0332

Purchased

No

270

Each

29.0000

80

80



YL 10/11/18

washer

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

ST245

29

M115832

107534

29

y80

AN960C416

NAS1149C0463

Purchased

No

270

Each

30.0000

1

1

M115358



Y1 YL 10/11/18

washer

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

ST346

30

\_\_\_\_\_

100993

30

\_\_\_\_\_

D3672-1

Manufactured

No

270

Each

847.0000

2

2

YL 10/11/18

Phenolic Washer

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

ST077

847

\_\_\_\_\_

42329

150

\_\_\_\_\_

52505

697

Y2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

Thursday, October 28, 2010 10:19:45 AM

Page 8

Work Order ID: 63374



9

Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 10/28/2010

Required Date: 11/4/2010

Start Qty: 1.00

Required Qty: 1.00

AN3C4A



Purchased No

270

Each

2,233.000

80

80



10/10/18

BOLT

Location	Loc Qty	Loc Code
ST303	3	
115438	3	
ST350	2230	
114108	14	
114416	12	
114523	2	
115300	202	
115589	1000	V80
115936	1000	

AN4C5A



Purchased No

270

Each

481.0000

1



BOLT

Location	Loc Qty	Loc Code
ST346	481	
110552	4	
112243	477	

D2646



Manufactured No

270

Each

45.0000

1



Aft Cap

Location	Loc Qty	Loc Code
FP-4	35	
57332	35	V1
fp5	6	
62652	6	
FP6	4	
52663	4	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

Page 9

Thursday, October 28, 2010 10:19:45 AM

Work Order ID: 63374



9

Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 10/28/2010

Required Date: 11/4/2010

Start Qty: 1.00

Required Qty: 1.00

D3413-1



Manufactured No

270

Each

23.0000

1

1



Ring

10/28/10

Location	Loc Qty	Loc Code
ST473	23	
51586	1	
53446	7	
<u>61322</u>	15	Y1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**DART**

DESIGN <b>CP</b>	DRAWN BY <b>PH</b>	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED <b>#</b>	APPROVED <b>#</b>	DRAWING NO. <b>D3274</b>	REV. D SHEET 1 OF 4
DATE <b>06.12.19</b>		TITLE <b>SKIDTUBE ASSEMBLY</b>	SCALE <b>NTS</b>
A	04.03.15	NEW ISSUE	
B	04.08.09	MOVE SADDLE HOLE: 42.14 WAS 42.76	
C	05.03.16	ADD -043; NEW INSERTS	
D	06.12.19	NEW INSERTS, SS WEARSHOE + GASKET	

**RELEASED****DEO ATTACHED**

SHOP CUP  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 13374

Qty -041	Qty -043	Part Number	Description
X		D3274-041	SKIDTUBE ASSEMBLY
	X	D3274-043	SKIDTUBE ASSEMBLY
1	1	D2600-1-240	EXTRUSION
1	1	D2646	AFT CAP
12	12	D2649	CROSS BOLT SPACER
12	37	D3275-1	CROSS BOLT SPACER
1	1	D3282-041	FLOAT WEB
1	1	D3285-1	CAP
1	1	D3413-1	RING
1	1	D3415-041	NUT PLATE
1	1	D3535-15	WEARSHOE
1	1	D3535-23	WEARSHOE
1	1	D3535-35	WEARSHOE
1	1	D3535-39	WEARSHOE
1	1	D3536-15	GASKET
1	1	D3536-23	GASKET
1	1	D3536-35	GASKET
1	1	D3536-39	GASKET
9	9	D3537-1	WEARPAD
1	1	D3537-3	WEARPAD
78	78	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, AELS-1032-130)
80	80	AN3C4A	BOLT
1	1	AN4C5A	BOLT
1	1	AN960C416	WASHER
80	80	AN960C10L	WASHER
2	2	CCR264SS3-3	RIVET
2	2	CR3212-4-03	RIVET
2	2	NAS1515H3L	WASHER

**GENERAL NOTES:**

1. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
2. DAMAGE TOLERANCE ON FWD BEND:  
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 7 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
3. ALL HOLES DRILLED ON CENTERLINES.
4. BOND D3282-041 FLOAT WEB INTO D3274-1/3 OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015. ENSURE HOLES LINE-UP.
5. WELDING TO BE DONE PER DART QSI 004.
6. FINISH: - ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1  
- POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
7. DRILL Ø0.297 HOLES FOR ALS7-1032-130 INSERTS USING DT3274-1T2 BEFORE FINISH. INSTALL ALS7-1032-130 INSERTS AFTER FINISH. SEAL WEARSHOE BOLTS WITH SIKAFLEX -241/-291.
8. SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

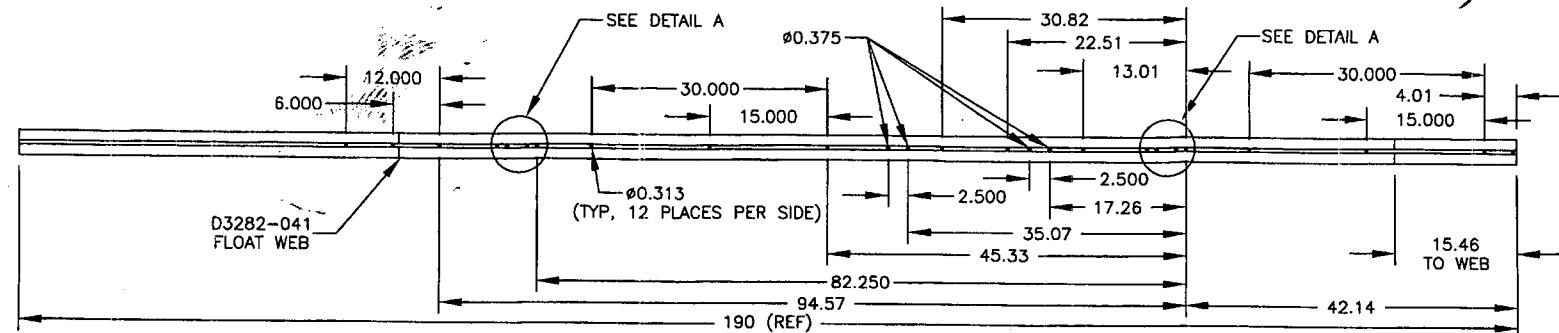
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

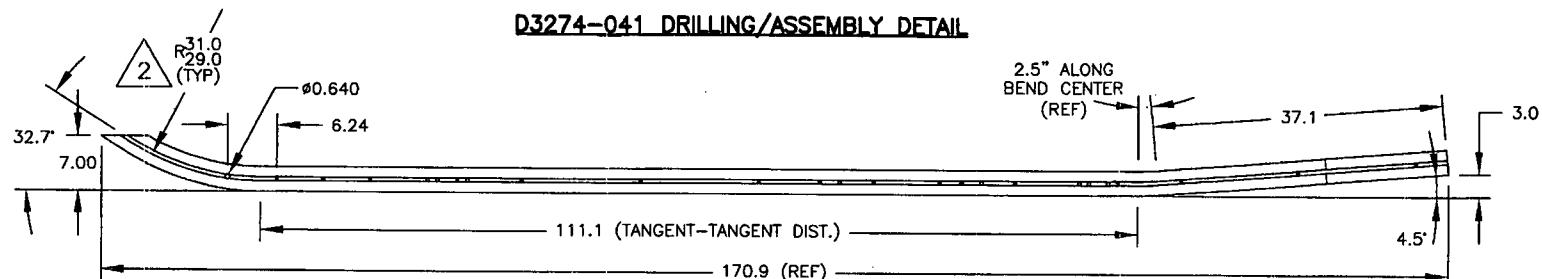
NOTE: Date &amp; initial all entries

DET ATTACHED

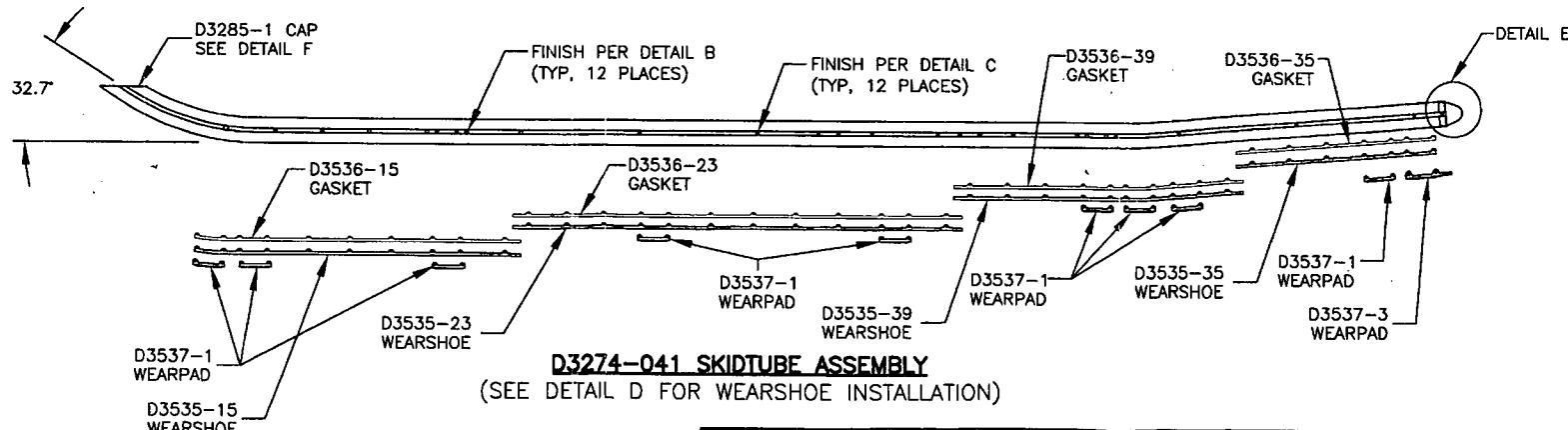
W6 43374



D3274-041 DRILLING/ASSEMBLY DETAIL



D3274-041 BEND/DRILLING DETAIL



D3274-041 SKIDTUBE ASSEMBLY  
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

RELEASED

07.02.12

DESIGN	DRAWN BY	DART	DART AEROSPACE USA, INC. PORT HADLOCK, WA
CP	Pt		REV. D
CHECKED	APPROVED		DRAWING NO.
#	#		D3274
DATE		TITLE	SKIDTUBE ASSEMBLY
06.12.19		SCALE	1:15

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REV. D  
SHEET 2 OF 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

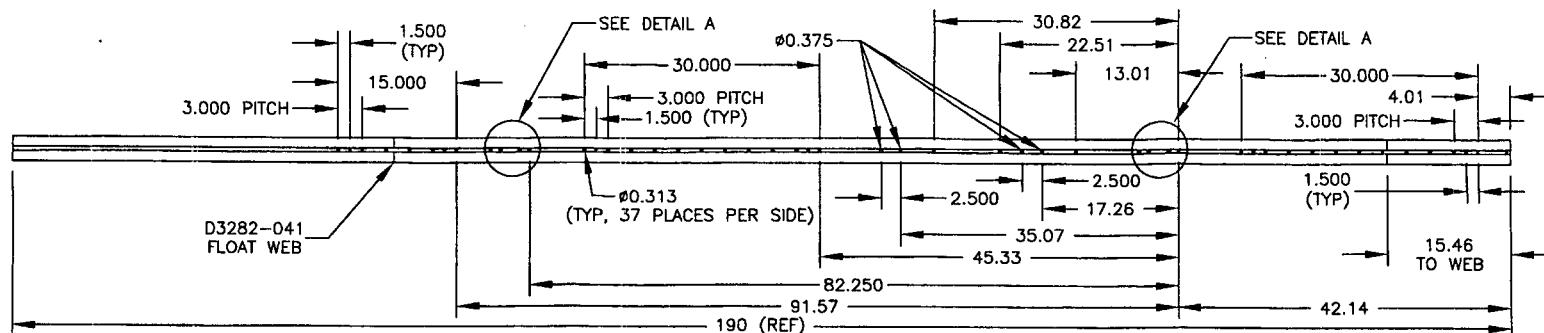
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

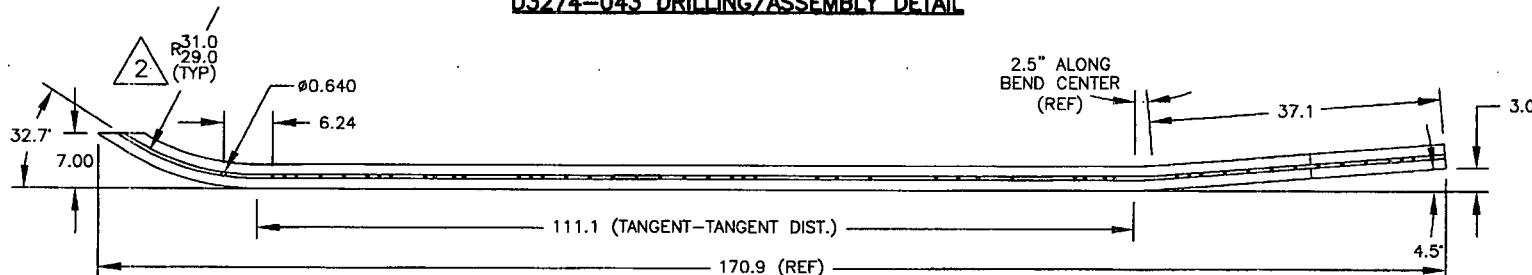
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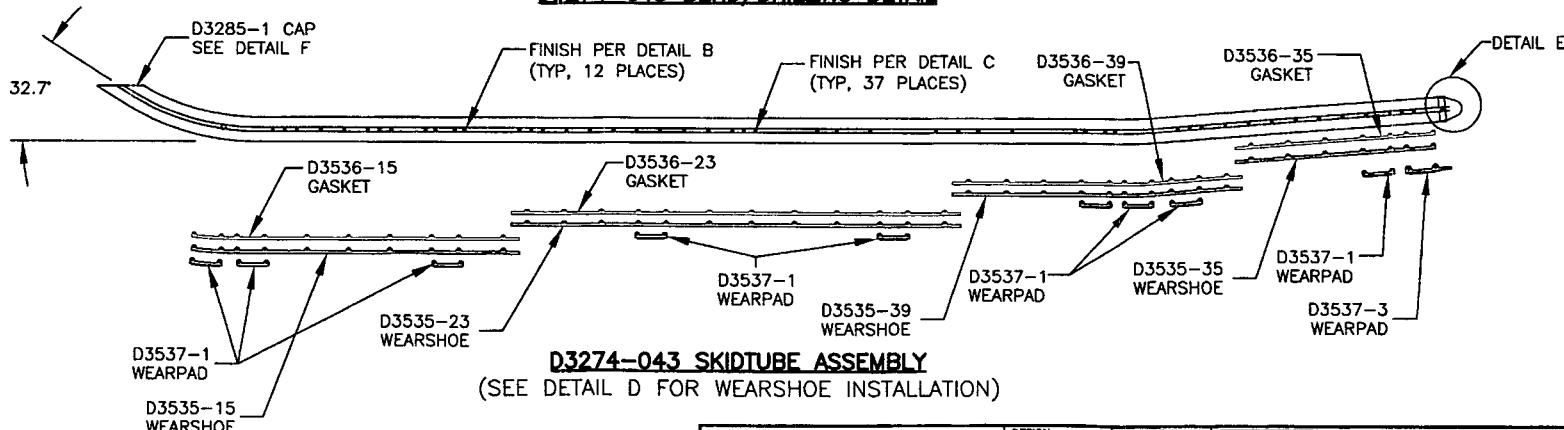
46 63374



D3274-043 DRILLING/ASSEMBLY DETAIL



D3274-043 BEND/DRILLING DETAIL



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07.02.12

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DESIGN	DRAWN BY	DART AEROSPACE USA, INC. PORT HADLOCK, WA
CP	PH	DRAWING NO. D3274
CHECKED	APPROVED	REV. D
DATE 06.12.19	TITLE SKIDTUBE ASSEMBLY	SCALE 1:15

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

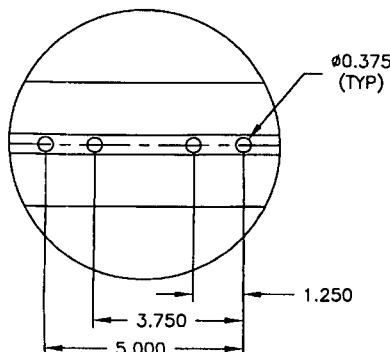
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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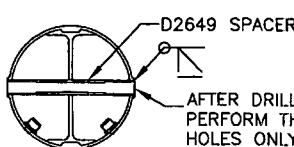
NOTE: Date & initial all entries

W063374

DETAIL A: DRILL DETAIL



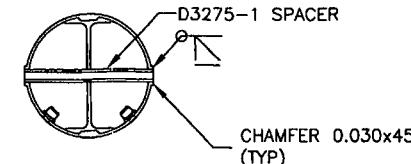
DETAIL B  
FOR Ø0.375 HOLES ONLY



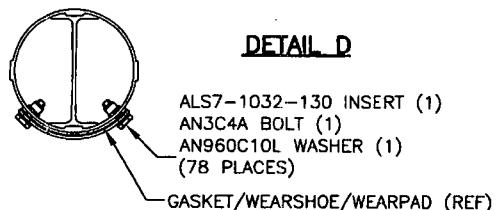
AFTER DRILLING AND BENDING ASSEMBLY  
PERFORM THE FOLLOWING FOR Ø0.375  
HOLES ONLY:

1. CHAMFER HOLE 0.030x45°
2. INSERT D2649 SPACER
3. WELD INTO PLACE AND GRIND FLUSH
4. C'BORE TO Ø0.313x0.75 DEEP

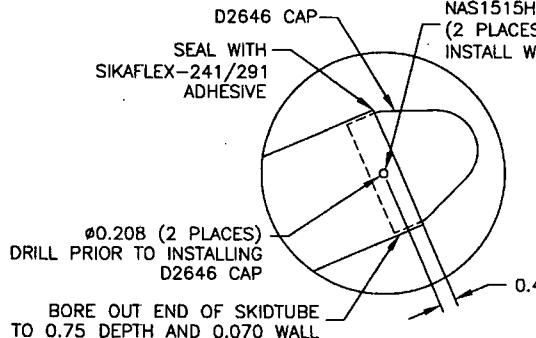
DETAIL C  
FOR Ø0.313 HOLES ONLY



DETAIL D

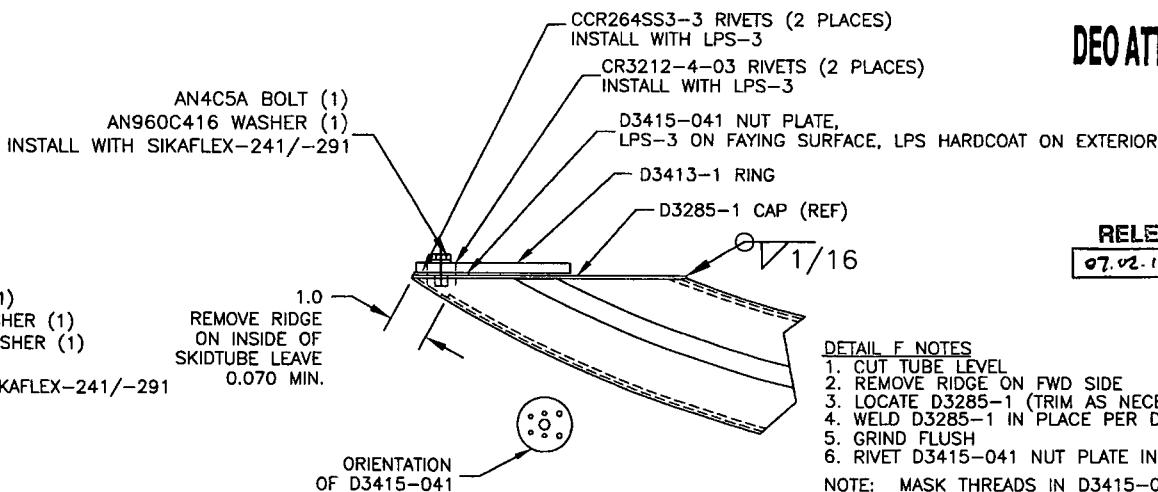


DETAIL E



AN4C5A BOLT (1)  
AN960C416 WASHER (1)  
INSTALL WITH SIKAFLEX-241/-291

DETAIL F: END FINISHING DETAIL



DET ATTACHED

RELEASED

07.02.12 #

DETAIL F NOTES

1. CUT TUBE LEVEL
  2. REMOVE RIDGE ON FWD SIDE
  3. LOCATE D3285-1 (TRIM AS NECESSARY)
  4. WELD D3285-1 IN PLACE PER DART QSI 004
  5. GRIND FLUSH
  6. RIVET D3415-041 NUT PLATE IN PLACE
- NOTE: MASK THREADS IN D3415-041  
PRIOR TO FINISH

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DART AEROSPACE USA, INC.

DESIGN

CP

DRAWN BY

PH

DART

DART AEROSPACE USA, INC.  
PORT HADLOCK, WA

CHECKED

#

APPROVED

#

DRAWING NO.

D3274

REV. D

SHEET 4 OF 4

DATE

06.12.19

TITLE

SKIDTUBE ASSEMBLY

SCALE

1:3

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DRAWING NO. D3274	TITLE SKIDTUBE ASSEMBLY	REV. D	DART AEROSPACE USA, INC ENGINEERING ORDER	D.E.O. NO. D3274-D-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>CP</i>	CHECKED	MFG. APPR. <i>M</i>	APPROVED	<i>MAP</i>	DE APPR. <i>H</i>	
DATE 09.06.17	DATE 09.06.23	DATE 09/06/23	DATE	09/06/23	DATE	09.06.23

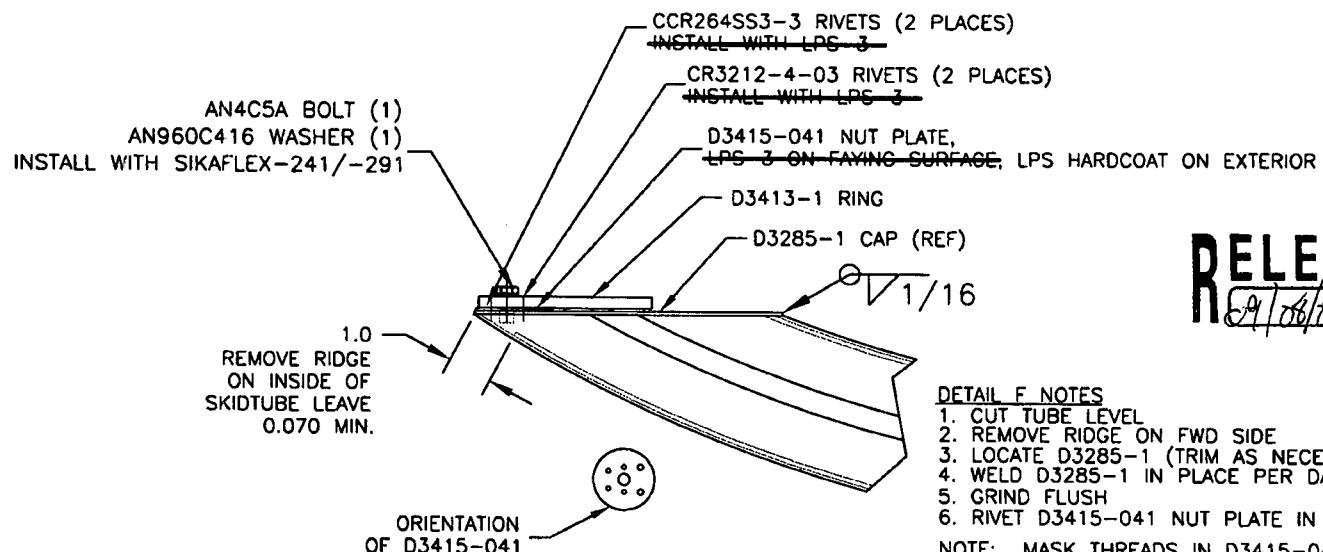
LPS-3 IS NO LONGER USED DURING ASSEMBLY OF SKIDTUBE.

AMEND NOTE 8: "~~SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES 'LPS-3' AFTER FINISH AND INSTALLATION OF INSERTS.~~  
~~COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES 'LPS PROCYON' AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER."~~

AMEND DETAIL F AS SHOWN:

*w/b 63374*

### DETAIL F: END FINISHING DETAIL



**RELEASED**  
*09/06/23 MAP*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 241

AWS D17.1.2001  
QUALIFICATION TEST RECORD

Name: Barclay Elliott  
Job number: 622508  
Part number: D206-L42-S41  
Description: 206 skid  
Welding Process: Tig  Mig   
Base material: Aluminum  
Current: AC  DC

TEST REQUIREMENTS AND RESULTS

Visual: pass  fail   
Penetration: pass  fail

UNACCEPTABLE

Cracks: pass  fail   
Undercut: pass  fail   
Pin holes: pass  fail   
Overlap (cold lap) pass  fail   
Porosity (surface): pass  fail   
Coloration: pass  fail

Qualifier RJD Date of Test Coupon 10-09-30

Welder Barclay Elliott Date of Test Coupon 10-09-30

The above named individual is qualified in accordance with AWS D17.1.2001 to weld.